

LISTING OF THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended): A communications module, configured to be mounted to a handheld communications ~~module device~~ and operative to interface with the handheld computing device, the communications module comprising:

a global positioning system that determines the location of the module relative to a standard set of coordinates; and

an L-band transceiver, operative to transmit data directly to a satellite relay, that broadcasts the determined location at a frequency within the L-band of the electromagnetic spectrum and receives location data for at least one other communications module; and

an electrically conductive enclosure that substantially encompasses the L-band transceiver, the electrically conductive enclosure being operative to facilitate the dissipation of heat produced by the L-band transceiver and to shield the L-band transceiver from electromagnetic interference, such that the communications module can be connected to the handheld computing device and removed from the handheld computing device without substantial invasion of the handheld computing device.

2. (Previously Presented): The module of claim 1, further comprising a single antenna operative to transmit and receive signals at L-band frequencies and to transmit and receive signals at GPS frequencies.

3. (Previously Presented): The module of claim 2, the antenna comprising a single quadrifilar helix antenna.

4. (Previously Presented): The module of claim 1, the communications module further comprising an input/output board that translates communications between the communications module and the handheld computing device.
5. (Previously Presented): The module of claim 1, the handheld computing device comprising an internal power supply, the internal power supply being operatively connected to the communications module.
6. (Previously Presented): The module of claim 5, the portable communications device further comprising an external battery that is operatively connected to the internal power supply.
7. Cancelled.
8. (Withdrawn): A personal digital assistant, comprising:
 - a global positioning system module that produces location information associated with the position of the personal digital assistant;
 - an L-band transceiver that broadcasts the location information to a network of at least one other personal digital assistant and receives location information from at least one other personal digital assistant within the network via a communications satellite;
 - a processing system that provides messages to the L-band transceiver and updates a display associated with the personal digital assistant according to the received location information and the location information produced at the global positioning system module; and
 - an electrically conductive enclosure that substantially encompasses the L-band transceiver, the electrically conductive enclosure being operative to facilitate the dissipation of heat produced by the L-band transceiver and to shield the L-band transceiver from electromagnetic interference.

9. (Withdrawn): The personal digital assistant of claim 8, the display associated with the personal digital assistant comprising a touchscreen display that allows the user to input commands into the personal digital assistant.
10. (Withdrawn): The personal digital assistant of claim 8, the processing system comprising a system memory that contains geographic information concerning an area of interest.
11. (Withdrawn): The personal digital assistant of claim 10, the system memory comprising at least one flash electrically erasable programmable read-only memory chip.
12. (Withdrawn): The personal digital assistant of claim 8, further comprising a detachable antenna that can be operatively connected to the personal digital assistant by a user to enable the personal digital assistant to facilitate the transmission and reception of messages by the L-band transmitter.
13. (Withdrawn): A method of updating location information at a handheld personal digital assistant via a battlefield tactical communications network, comprising:
- determining the location of the handheld personal digital assistant at regular intervals via a global positioning system;
 - encoding routing information into a message including the determined location, the routing information indicating at least one of a plurality of logical networks as an intended recipient, a given logical network comprising a plurality of handheld personal digital assistants that can be addressed as a single unit;
 - broadcasting the message on an L-band frequency via a satellite relay to at least one other personal digital assistant on the network;
 - receiving location information from at least one other personal digital assistant on the network on an L-band frequency via a satellite relay at the handheld personal digital assistant; and

displaying the determined location and the received location information on a display associated with the personal digital assistant.

14. (Withdrawn): The method of claim 13, wherein displaying the determined location and the received location information comprises displaying the determined location and the received location information as part of a situational awareness map, such the determined location and the received location information are shown relative to their respective locations in an area represented by the situational awareness map.

15. Cancelled.

16. (Withdrawn): The method of claim 13, further comprising determining if the received location information from at least one other personal digital assistant is intended for a logical network associated with the handheld personal digital assistant.

17. (Withdrawn): A method of adapting a personal digital assistant to operate in conjunction with a transceiver module having a predetermined form factor, comprising:

providing at least one logic connection through a data port on the personal digital assistant to provide programmable logic signals to the transceiver;

providing a connection to a battery associated with the personal digital assistant to provide an operating voltage for the transceiver module;

adapting the received programmable logic signals and operating voltage according to the predetermined form factor of the transceiver; and

loading interface software into the transceiver such that the personal digital assistant can drive the transceiver module to periodically transmit location information associated with the transceiver module.

18. (Withdrawn): The method of claim 17, further comprising the step of connecting an external battery to the battery associated with the personal digital assistant.

19-24. (Cancelled).

25. (Previously Presented): A communications package configured to adapt a handheld computing device for use in a situational awareness system, the communications package comprising:

the communications module of claim 1; and

a computer readable medium storing executable instructions, the executable instructions being configured such that, when loaded onto the handheld computing device, the handheld computing device is adapted to receive the location of the communications module from the global positioning system, receive location data for each of a plurality of other communications modules from the L-band transceiver control, and display the locations of each of the communications module and the plurality of other communications modules on a display associated with the handheld computing device.

26. (Cancelled).

27. (Previously Presented): The communications package of claim 25, the executable instructions being configured to decrypt location data received at the L-band transceiver.

28. (Previously Presented): The communications package of claim 25, the executable instructions being configured to regulate the power usage of each of the L-band transceiver, the global positioning system, and the handheld computing device.

29. (Previously Presented): The communications module of claim 1, the electrically conductive enclosure comprising a conductive back plate configured such that at least a portion of the handheld computing device can be mechanically mounted to the conductive back plate.

30. (Previously Presented): The communications module of claim 29, the back plate comprising at least one port configured to allow an exchange of data and power between the communications module and the handheld computing device.

31. (Previously Presented): The communications module of claim 29, the conductive back plate being configured to replace a back plate of the handheld computing device, and a remainder of the electrically conductive enclosure being separable from the back plate as to allow connection and disconnection of the L-band transceiver and global positioning system from the handheld computing device.